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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,924	07/30/2003	Ulrich Botzel	L&L-10045	1919
7590 04/28/2005 LERNER AND GREENBERG, P.A. POST OFFICE BOX 2480 HOLLYWOOD, FL 33022-2480			EXAMINER DOAN, KIET M	
			ART UNIT 2683	PAPER NUMBER

DATE MAILED: 04/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/629,924

Applicant(s)

BOTZEL ET AL.

Examiner

Kiet Doan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-20 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>07/30/03</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Allowable Subject Matter*

**Claim 8** objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-5, 14-17 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. (Patent No. 5,166,953) in view of Jandrell (Patent No. 6,459,704).

Consider **claims 1, 14 and 20**, Hershey teaches a data/method transmission system, comprising: at least two stations between which data bursts being interchanged via radio (C3, L15-24, Fig.2, Illustrate two stations interchanged data via radio). Hershey teach the limitation of claim as discuss **but fail to teaches** said stations including: a first station having a first transmitter for up-mixing the data bursts from baseband to a first channel mid-frequency and for transmitting them, and a first receiver receiving the data bursts at a second channel mid-frequency and down-mixing them to an intermediate frequency said first station having a first local oscillator producing a first local frequency required

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for up-mixing from the baseband to the first channel mid-frequency and required for down-mixing from the second channel mid-frequency to the intermediate frequency; and a second station having a second transmitter up-mixing the data bursts from the baseband to the second channel mid-frequency and transmitting them, and a second receiver receiving the data bursts at the first channel mid-frequency and down-mixing them to the intermediate frequency, a frequency hop between the first channel mid-frequency used for a downlink transmission from said first station to said second station and the second channel mid-frequency used for an uplink transmission from said second station to said first station has a magnitude corresponding to a magnitude of the intermediate frequency, said second station having a second local oscillator producing a second local frequency required for up-mixing from the baseband to the second channel mid-frequency and required for down-mixing from the first channel mid-frequency to the intermediate frequency.

In an analogous art, Jandrell teaches "Method and system for radio-location determination". Further, Jandrell teaches said stations including: a first station (C4, L6-10, Fig.1, No.108a, first station read on PROX) having a first transmitter for up-mixing the data bursts from baseband to a first channel mid-frequency and for transmitting them, and a first receiver receiving the data bursts at a second channel mid-frequency and down-mixing them to an intermediate frequency said first station having a first local oscillator producing a first local frequency required for up-mixing from the baseband to the first channel mid-frequency and required for down-mixing from the second channel mid-frequency

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to the intermediate frequency (Fig.5, Illustrate No.314 as transceiver, No.318 as down-mixer, No.319 as IF, No. 312 as local oscillator); and a second station (C4, L6-10, Fig.1, No.108a, first station read on PAD) having a second transmitter up-mixing the data bursts from the baseband to the second channel mid-frequency and transmitting them, and a second receiver receiving the data bursts at the first channel mid-frequency and down-mixing them to the intermediate frequency (Fig.3a, No.214 as transceiver frequency, No.216 as up mixer, No. 218 as down mixer), a frequency hop between the first channel mid-frequency used for a downlink transmission from said first station to said second station (C2, L36-41 teach using hopping technique) and the second channel mid-frequency used for an uplink transmission from said second station to said first station has a magnitude corresponding to a magnitude of the intermediate frequency, said second station having a second local oscillator producing a second local frequency required for up-mixing from the baseband to the second channel mid-frequency and required for down-mixing from the first channel mid-frequency to the intermediate frequency (C7, L9-40, Fig.3a, Illustrate the limitation).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Hershy and Jandrell system, such that station interchanged via radio contain transceiver with up/down mixer include IF and oscillator, to provide means for uninterrupted transceiver data.

Consider **claim 2 and 15**, Jandrell teaches the data transmission system

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wherein the first channel mid-frequency is chosen on a pseudo-random basis (C14, L24-35).

Consider **claims 3 and 16**, Jandrell teaches the data transmission system wherein data is transmitted using a frequency hopping method, with the channel mid-frequency being changed after each transmitted data burst (C2, L36-40, C4, L46-64).

Consider **claims 4 and 17**, Jandrell teaches the data transmission system wherein the channel mid-frequency is constant during a transmission of a data burst (C4, L23-46 teach PROX and PAD are transceiver which transmitting frequency constant is inherent).

Consider **claims 5 and 19**, Jandrell teaches the data transmission system wherein a difference between the first channel mid-frequency and the second channel mid-frequency is a noninteger multiple of channel separation (Fig.3a, No.225 and Fig.5, No.325, Illustrate means as noninteger multiple of channel).

3. **Claims 6-7, 9-10, 18** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. (Patent No. 5,166,953) in view of Jandrell (Patent No. 6,459,704) and further view of Higuchi (Patent No. 6,438,358).

Consider **claim 6**, Hershy and Jandrell teach the limitation as discuss

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above **but fail to teach** the data transmission system wherein said first and second local oscillators are frequency-stabilized by a phase locked loop.

In an analogous art, Higuchi teaches "Multi-Band radio terminal apparatus". Further, Higuchi teaches the data transmission system wherein said first and second local oscillators are frequency-stabilized by a phase locked loop (C5, L54-67, Fig.1, No.36, No.16, Illustrate PLL and oscillator).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Hershy, Jandrell and Higuchi system, such that data transmission system wherein second local oscillators are frequency-stabilized by a phase locked loop, to provide means for timing the frequency when transceiver.

Consider **claims 7 and 18**, Hershy teaches the data transmission system further comprising means for producing guard time intervals between various data bursts (C3, L3-14).

Consider **claim 9**, Higuchi teaches the data transmission system wherein said first and second stations have means for producing identification information at a start of a transmission of each data burst (C7, L6-39).

Consider **claim 10**, Janrell teaches the data transmission system wherein transmission frequencies within an ISM frequency band are used (C2, L41-44).

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4. **Claims 11-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hershey et al. (Patent No. 5,166,953) in view of Jandrell (Patent No. 6,459,704) in view of Higuchi (Patent No. 6,438,358) and further view of Ritter (Patent No. 6,836,648).

Consider **claim 11**, Hershey, Jandrell and Higuchi teach the limitation of claim as discuss above **but fail to teach** the data transmission system wherein said first station and said second station are part of a piconetwork.

In an analogous art, Ritter teaches "Receiving apparatus for electromagnetic signals". Further, Ritter teaches the data transmission system wherein said first station and said second station are part of a piconetwork (C1, L42-58).

Therefore, it would have been obvious at the time that the invention was made that person having ordinary skill in the art to modify Hershy, Jandrell, Higuchi and Ritter system, such that pico network are part of transmission system, to provide means for to ensure network coverage without any gaps.

Consider **claim 12**, Ritter teaches the data transmission system according to claim 1, wherein one of said first and second stations is a base station and the other is a mobile station (C1, L15-26).

Consider **claim 13**, Ritter teaches the data transmission system wherein the data transmission system can be used in cordless communication systems, in computer-controlled entertainment systems, or in computer-controlled games



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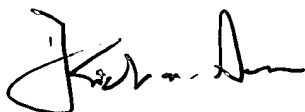
systems (C1, L15-41, teach system can be use mobile and it's inherently that system can use/apply in computer).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet Doan whose telephone number is 571-272-7863. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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